detect locations such as near the chest wall or in the tail of the breast, and inaccurate reading. The likelihood of a false-negative mammogram is increased in patients with small breasts, dense breasts, and with retroareolar lesions. Using Wolfe's classification, the likelihood of a cancer being missed in a fatty (N_1) breast is only 2.08% but rises to 56.25% in a very dense (P_2) breast.

Thus when there is a suggestive, palpable breast lump, the patient cannot be safely followed by observation, repeated palpation examinations, and periodic mammograms. In such a patient, a definitive diagnosis must be established by examining a tissue specimen. The tissue specimen can be obtained by excisional biopsy and pathologic diagnosis, or, in selected circumstances, cells obtained by thin-needle aspiration for cytologic diagnosis. Only then will the risk of a normal mammogram giving a false sense of security be avoided.

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Asymptomatic Bacteriuria During Pregnancy

SIGNIFICANT BACTERIURIA in asymptomatic pregnant women was defined by Kass in 1960 as greater than 10^5 organisms per milliliter of clean-voided urine. The prevalence of asymptomatic bacteriuria during pregnancy is 2% to 14%. Factors associated with a higher risk include advanced age, higher parity, and a lower socioeconomic status. In approximately 20% to 40% of untreated women with asymptomatic bacteriuria, a symptomatic urinary tract infection, such as cystitis or pyelonephritis, will subsequently develop during the course of pregnancy or immediately postpartum. Conversely, acute pyelonephritis will develop in less than 5% of patients with asymptomatic bacteriuria who have been appropriately treated with antibiotics.

The basic factor predisposing to urinary tract infection during the prenatal period is the relative stasis of urine caused by pregnancy-induced changes. Hydroureter is common during the last half of pregnancy. Progesterone causes the ureters to dilate, while the enlarging uterus leads to mechanical compression. In addition, changes in a pregnant woman's immune system may make her more susceptible to infection.

Escherichia coli accounts for about 80% of the identified pathogens. *Klebsiella pneumoniae, Proteus mirabilis,* and *Enterobacter* organisms are also common infecting organisms.

Several investigators have found an increased incidence of premature delivery in untreated patients with asymptomatic bacteriuria. Patients who are treated and remain unaffected, however, do not appear to be at increased risk for preterm delivery. The patients at highest risk are those in whom acute pyelonephritis develops, with associated premature labor and advanced cervical dilation.

While urine culture is considered the gold standard for diagnosing urinary tract infections, other methods have been proposed as cost-effective means for screening obstetric patients for asymptomatic bacteriuria. Routine urine analysis, Gram's stain, and chemical analysis to test for leukocyte esterase and nitrite have not been proved sufficiently sensitive. The dip-slide (Uricult) test has been valuable in the ambulatory setting. If there is growth on the MacConkey agar side of the paddle (specific for the growth of gram-negative bacilli) at a colony count of 10^4 or more, a positive traditional culture can be expected 81% of the time. This is the predictive value of the positive result. It is judicious to then also do routine culture and sensitivity testing. If there is growth on the cysteine-lactose-electrolyte-deficient agar side of the paddle (which supports the growth of all organisms) at a colony count of 10^5 or more, culture before treatment is necessary because of the high percentage of false-positives. Recently a test known as the FiltraCheck-UTI bacteriuria detection system has been evaluated. This makes use of a growth-independent colorimetric method that uses stable reagents and a disposable filter disk. It is inexpensive and can be done in one minute. Initial results have shown a sensitivity of 96.5% and a specificity of 79.7%. It may be useful in the future as an initial screen for asymptomatic bacteriuria.

Because the most commonly identified organism is *E coli,* current treatment recommendations include administering an antimicrobial drug for 7 to 14 days, such as ampicillin, nitrofurantoin, sulfonamides (except in the third trimester), or first-generation cephalosporins. The efficacy of single-dose therapy for asymptomatic bacteriuria during pregnancy has been confirmed, with the eradication of bacteria in 70% to 80% of cases. Recurrence rates are less than 5%. The advantages of single-dose therapy include greater patient compliance, lower cost, fewer side effects, and less potential hazard to the fetus. This regimen is most appropriately used in women for whom the above factors are significant and who have not had urologic problems. A culture should be repeated at the completion of therapy, and patients with a positive result need to be re-treated. It has been recommended that patients treated for acute pyelonephritis be placed on suppressive antibiotic therapy or have regular repeat cultures for the duration of their pregnancy.

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Lyme Disease

FIRST DESCRIBED in November 1975, Lyme disease has become the most common tick-borne disease in the United States. The disease is transmitted by the bite of a tick, *Ixodes dammini,* although only a few patients will recall the tick bite. In 1984 the causative organism of Lyme disease was identified to be a *Borrelia burgdorferi.*

Lyme disease indiscriminately affects both sexes and all age groups of patients and most often occurs between June and September. The disease occurs predominantly in three regions in the US—the coastal Northwest; Minnesota and Wisconsin; and parts of California, Oregon, Utah, and Nevada.